

# **CUSTOM CAMS - FLAT TAPPET / ROLLER**

## **FLAT TAPPET CAMS**

- SPECIAL MATERIAL STEEL BILLET  
FLAT TAPPET CAMS FOR HIGH  
SPRING PRESSURE & HIGH RPM USE.

## **ROLLER CAMS**

- CAM BEARING SIZE
- STD, 50mm, 55mm, 60mm
- SPECIAL FIRING ORDERS
- 4-7 SWITCH, 4-7-3-2 SWITCH

## **CUSTOM DESIGN CAMS**

- SUPPLY AIR FLOW #'S, ENGINE  
SPECS, ROCKER RATIOS, & MAX  
ENGINE RPM WHEN ORDERING.

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# HYDRAULIC CAMSHAFTS

Non Roller 1964-1997

199 232 234 (4.0L) 258 (4.2L) 6 cylinder



## HYDRAULIC CAMSHAFTS

Note: These cams use .000" intake and exhaust valve lash.

Description (Note: See pages 8-9 for a detailed explanation of each Performance Level)	C.I.D. Group	Part Number	Grind Lobe Center	Advertised Duration		Duration @ .050"		Gross Lift 1.6 / 1.6		Suitable Component Kit	
				Intake	Exhaust	Intake	Exhaust	Intake	Exhaust		
<b>MILEAGE COMPU-PRO / PERFORMANCE LEVEL 1</b> - Enhances mileage and torque in stock engines. RPM Power Range: Idle to 3500 / Redline: 4000 plus.	All cid	<b>44242</b>	242HDP 110°	242°	250°	184°	192°	.411"	.413"	<b>84044</b>	
<b>POWER COMPU-PRO / PERFORMANCE LEVEL 2</b> - Perfect combination power/mileage with extended rpm's. RPM Power Range: 1500 to 4000 / Redline: 4250 plus	All cid	<b>44243</b>	256HDP 112°	256°	264°	194°	204°	.437"	.445"	<b>84044</b>	
<b>BAJA BEAST / PERFORMANCE LEVEL 2</b> - Strong upper bottom/top end power. RPM Power Range: 1800 to 4250 / Redline: 5000 plus.	All cid	<b>44915</b>	280HDP 112°	280°	280°	208°	208°	.448"	.448"	<b>84044</b>	
<b>ULTRA PERFORMANCE COMPU-PRO / PERFORMANCE LEVEL 4</b> - Street/strip cam. Super top end power. RPM Power Range: 2000 to 5000 / Redline: 5500 plus.	All cid	<b>44245</b>	278HDP 112°	278°	284°	212°	218°	.462"	.475"	<b>84044</b>	
<b>CUSTOM GROUND HYDRAULIC</b> - Special order hydraulic lifter camshaft ground to your specifications. Call our technical support staff for personalized camshaft assistance.	All cid	<b>00001</b>	<i>Refer to page 7 for camshaft recommendation form</i>								<b>84044 or 84046</b>

## SOLID CAMSHAFTS

Note: These cams use .022" intake, .024" exhaust valve lash.

Description (Note: See pages 8-9 for a detailed explanation of each Performance Level)	C.I.D. Group	Part Number	Grind Lobe Center	Advertised Duration		Duration @ .050"		Gross Lift 1.6 / 1.6		
				Intake	Exhaust	Intake	Exhaust	Intake	Exhaust	
<b>PRO-STREET / PERFORMANCE LEVEL 2</b> -Delivers versatile height torque, low end and mid-range power. RPM Power Range: 1500 to 400 / Redline: 5500 plus.	All cid	<b>44310</b>	260FDP 112°	260°	266°	210°	218°	.448"	.453"	
<b>PRO-STREET / PERFORMANCE LEVEL 3</b> - Strong upper bottom to mid-range power. RPM Power Range: 1800 to 4500 / Redline: 6000 plus.	All cid	<b>44311</b>	282FDP 112°	282°	287°	238°	242°	.480"	.486"	
<b>PRO-STREET / PERFORMANCE LEVEL 4</b> - Exhibits strong mid-range to top end performance. RPM Power Range: 2000 to 6000 / Redline: 7000 plus.	All cid	<b>44312</b>	292FDP 110°	292°	298°	248°	250°	.499"	.512"	
<b>CUSTOM GROUND SOLID</b> - Special order solid lifter camshaft ground to your specifications. Call with all engine data incl. head flow data, valve sizes, operating power range, etc when ordering.	All cid	<b>00000</b>	<i>Refer to page 7 for camshaft recommendation form</i>							
<b>CUSTOM GROUND ROLLER</b> - Special order roller lifter camshaft ground to your specifications. Call with all engine data incl. head flow data, valve sizes, operating power range, etc when ordering.	All cid	<b>00006</b>	<i>Refer to page 7 for camshaft recommendation form</i>							

## ENGINEERED COMPONENT KITS

Part No.	Lifters	Springs	Retainers	Remarks
<b>84044</b>	66031-12	68315-12	87049D- 12	<b>Hydraulic</b> Lifter. For rpm Up to 6000.
<b>84046</b>	66031-12	68390X3-12	87049D- 12	<b>Hydraulic</b> Lifter. For rpm Up to 6500 plus
<b>84244</b>	66945-12	68315-12	87049D- 12	<b>Solid Lifter.</b> For rpm Up to 6750.
<b>84246</b>	66945-12	68390X3-12	87049D- 12	<b>Solid Lifter.</b> For rpm over to 7000.

### Kits shown fit 3/8 valves

Spring pressure:

68315-12 Seat: 1.850" @ 105 lbs / Nose: 1.400" @ 267 lbs / Coil bind: 1.150"

(Stock O.D., no machine work).

68390X3-12 Seat: 1.800" @ 115 lbs / Nose: 1.300" @ 340 lbs / Coil bind: 1.100"

(Machine work, use cutter 68985\*).

\* Machine work required, specify 3/8 pilot shaft when ordering.

Valve timing events are available online at: [www.crower.com/valvtime.html](http://www.crower.com/valvtime.html)

Engineered Component Kit for custom ground solid, & roller: 84244,84246.

## ACCESSORIES

Part No.	Description
<b>See pg. 180</b>	Spring seat cutter with 3/8 pilot
<b>Pg's. 146-149</b>	Pushrods

**Note:** Longer pushrods may be required to achieve proper hydraulic lifter preload (.050" off snap-ring). Use checking pushrod.





# HYDRAULIC CAMSHAFTS

## Non Roller 1966-1991

**290 304 343 360 (5.9L) 390 401 V8**

Note: These cams use .000" intake and exhaust valve lash.

**X-TREME MILEAGE CAMS AVAILABLE!**  
CONTACT CROWER TECHNICIANS FOR MORE INFO.

See the following page for specs on accessories

Description (Note: See pages 8-9 for a detailed explanation of each Performance Level)	C.I.D. Group	Part Number	Grind Lobe Center	Advertised Duration		Duration @ .050"		Gross Lift 1.6 / 1.6	
				Intake	Exhaust	Intake	Exhaust	Intake	Exhaust
<b>BAJA BEAST / PERFORMANCE LEVEL 2</b> - Excellent low end and mid-range power. RPM Power Range: 1500 to 4500 / Redline: 5500 plus.	343 up	<b>45915</b>	258H 112°	258°	264°	204°	210°	.445"	.448"
<b>POWER BEAST / PERFORMANCE LEVEL 2</b> - Excellent low end and mid-range power. RPM Power Range: 1750 to 4750 / Redline: 5750 plus.	343 up	<b>45916</b>	280HDP 110°	280°	289°	204°	214°	.450"	.474"
<b>MILEAGE COMPU-PRO / PERFORMANCE LEVEL 1</b> - These cams are designed to enhance throttle response and low end torque while delivering fuel efficient motoring. High vacuum, smooth idle and maximum fuel efficiency are characteristic to these profiles. Stock or small cfm carburetor, small diameter tube headers, dual exhaust, and ignition rework are recommended for maximum benefit. Intended for low compression engines operating in the "economy zone." RPM Power Range: Idle to 3500 / Redline: 4500 plus.	290 304	<b>45236</b>	236HDP 112°	236°	246°	182°	184°	.395"	.400"
	343 360	<b>45237</b>	246HDP 112°	246°	253°	184°	190°	.402"	.422"
	390 401	<b>45238</b>	250HDP 112°	250°	258°	192°	196°	.427"	.432"
<b>POWER COMPU-PRO / PERFORMANCE LEVEL 2</b> - These cams provide excellent low end and mid-range power and extended rpm range for spirited street and off-road driving. A perfect combination of mileage and power. Modifications should include small diameter tube headers, low restriction dual exhaust, aftermarket manifold, increased cfm carburetor and reworked or performance ignition. Increase in compression ratio to 9.5:1 is recommended for maximum output. Works well with automatic transmission or 4-speed. RPM Power Range: 1500 to 4000 / Redline: 5500 plus.	290 304	<b>45239</b>	260HDP 112°	260°	266°	204°	210°	.446"	.450"
	343 360	<b>45240</b>	270HDP 112°	270°	276°	210°	220°	.450"	.475"
	390 401	<b>45241</b>	276HDP 112°	276°	281°	212°	220°	.464"	.488"
<b>HIGH PERFORMANCE COMPU-PRO / PERFORMANCE LEVEL 3</b> - Intended for the performance oriented hot-street application, these cams offer an extended rpm range with emphasis on upper bottom to top end power. Performance gears, headers, dual exhaust, larger than stock cfm carburetor, performance manifold and increased compression (9.5:1 to 10.5:1) are required. Works well with automatic transmission if matched with proper ring and pinion gears and/or high stall converter. RPM Power Range: 1800 to 4500 / Redline: 6000 plus.	290 304	<b>45241</b>	276HDP 112°	276°	281°	212°	220°	.464"	.488"
	343 360	<b>45246</b>	293HDP 114°	293°	293°	223°	223°	.477"	.477"
	390 401	<b>45243</b>	284HDP 112°	284°	290°	228°	234°	.512"	.525"
<b>ULTRA PERFORMANCE COMPU-PRO / PERFORMANCE LEVEL 4</b> - The following grinds are best suited for dual purpose hot street/drag strip situations. These cams exhibit strong mid-range and top end torque and horsepower. Headers, dual exhaust, larger cfm carburetor, performance ignition and 11:1 compression are a must. Use with manual or automatic transmission. Low gearing a must. RPM Power Range: 2000 to 6000 / Redline: 6500 plus.	343 360	<b>45247</b>	305HDP 112°	305°	315°	234°	244°	.520"	.542"
	390 401	<b>45245</b>	311HDP 112°	311°	316°	246°	250°	.547"	.557"
<b>HI-DRAULIC HAULER / PERFORMANCE LEVEL 4</b> - Strong mid to top end torque. RPM Power Range: 2500 to 6000 / Redline: 6500	290 343	<b>45210</b>	290HDP 108°	290°	298°	226°	236°	.498"	.496"
<b>HI-DRAULIC HAULER / PERFORMANCE LEVEL 4</b> - Emphasis on upper mid to top end power. RPM Power Range: 2500 to 6000 / Redline: 6500	360 401	<b>45211</b>	296HDP 108°	296°	302°	230°	242°	.504"	.501"
<b>HI-DRAULIC HAULER / PERFORMANCE LEVEL 5</b> - Explosive mid to top end torque and horsepower. RPM Power Range: 3000 to 6500 / Redline: 6500	360 401	<b>45212</b>	304HDP 108°	304°	312°	242°	246°	.533"	.562"
<b>CUSTOM GROUND HYDRAULIC</b> - Special order hydraulic lifter camshaft ground to your specifications. Call with all engine data incl. head flow data, valve sizes, operating power range, etc when ordering.	All cid	<b>00001</b>	<b>Refer to page 7 for camshaft recommendation form</b>						

### ENGINEERED COMPONENT KITS

Part No.	Lifters	Springs	Retainers	Remarks
<b>84045</b>	66031-16	68315-16	87049-16 <sup>A</sup>	<b>Hydraulic Lifter.</b>

Spring pressure:

68315-16 Seat: 1.850" @ 105 lbs / Nose: 1.350" @ 275 lbs / Coil bind: 1.150" (Stock O.D., no machine work).

A. Some 1973-74 engines were equipped with 11/32 exhaust valves and rotators. Order 87049-8 and 87050-8 steel retainers, and 86071-8 and 86072-8 valve stem seals.

\* Machine work required, specify 3/8 pilot shaft when ordering.

Note: If exceeding 7500 rpm, high pressure springs and titanium retainers may be required. See spring and retainer specs or contact Crower for proper recommendations.

Valve timing events are available online at: [www.crower.com/valvtime.html](http://www.crower.com/valvtime.html)

# SOLID CAMSHAFTS Non Roller 1966-1991

290 304 343 360 (5.9L) 390 401 V8



Note: These cams use .022" intake, .024" exhaust valve lash.

Description (Note: See pages 8-9 for a detailed explanation of each Performance Level)	C.I.D. Group	Part Number	Grind Lobe Center	Advertised Duration		Duration @ .050"		Gross Lift 1.6 / 1.6	
				Intake	Exhaust	Intake	Exhaust	Intake	Exhaust
<b>COMPU-PRO / PERFORMANCE LEVEL 4</b> - High torque, all purpose camshaft with emphasis on mid-range power. RPM Power Range: 2500 to 6000 / Redline: 7000 plus.	290 343	<b>45315</b>	282FDP 108°	282°	287°	240°	242°	.478"	.486"
<b>COMPU-PRO / PERFORMANCE LEVEL 4</b> - High torque, all purpose camshaft with emphasis on mid to top end power. RPM Power Range: 3000 to 6500 / Redline: 7500 plus.	360 401	<b>45316</b>	292FDP 108°	292°	298°	246°	250°	.499"	.509"
<b>COMPU-PRO / PERFORMANCE LEVEL 5</b> - Does it all. Brutal power throughout the power range. RPM Power Range: 3500 to 7500 / Redline: 8000 plus.	290 343	<b>45317</b>	304FDP 108°	304°	310°	258°	262°	.534"	.549"
<b>COMPU-PRO / PERFORMANCE LEVEL 5</b> - Explosive power through the power range. RPM Power Range: 3750 to 7750 / Redline: 8250 plus.	360 401	<b>45318</b>	310FDP 108°	310°	318°	262°	270°	.547"	.563"
<b>CUSTOM GROUND SOLID</b> - Special order solid lifter camshaft ground to your specifications. Call our technical support staff for personalized camshaft assistance.	All cid	<b>00000</b>	<i>Refer to page 7 for camshaft recommendation form</i>						
<b>CUSTOM GROUND ROLLER</b> - Special order roller lifter camshaft ground to your specifications. Call our technical support staff for personalized camshaft assistance.	All cid	<b>00006</b>	<i>Refer to page 7 for camshaft recommendation form</i>						

## ENGINEERED COMPONENT KITS

Part No.	Lifters	Springs	Retainers	Seals	Remarks
<b>84245</b>	66945-16	68315-16	87049- 16 <sup>A</sup>		<b>Solid Lifter.</b> For rpm Up to 7000.
<b>84345</b>	66945-16	68390X3-16	87049- 16 <sup>A</sup>	86071- 16	<b>Solid Lifter.</b> For high rpm. Limited street

Spring pressure:

68315-16 Seat: 1.850" @ 105 lbs / Nose: 1.350" @ 275 lbs / Coil bind: 1.150"  
(Stock O.D., no machine work).

68390X3-16 Seat: 1.800" @ 115 lbs / Nose: 1.300" @ 331 lbs / Coil bind: 1.110"  
(Machine work, use cutter 68985\*).

A. Some 1973-74 engines were equipped with 11/32 exhaust valves and rotators. Order 87049-8 and 87050-8 steel retainers, and 86071-8 and 86072-8 valve stem seals.

\* Machine work required, specify 3/8 pilot shaft when ordering.

Note: If exceeding 7500 rpm, high pressure springs and titanium retainers may be required. See spring and retainer specs or contact Crower for proper recommendations.

Valve timing events are available online at: [www.crower.com/valvtime.html](http://www.crower.com/valvtime.html)

## ACCESSORIES

Part No.	Description
<b>See pg. 180</b>	Spring seat cutter
<b>Pg's. 146-149</b>	Pushrods
<b>See pg. 138</b>	Timing gear set
<b>Pg's. 150-165</b>	SS Rocker arms
<b>Pg's. 150-165</b>	Alum. Rocker arms

**Note:** If using guide plates, heat-treated pushrods (RC 60 series) are required. See pushrods or contact Crower.

**Note:** When installing solid or roller lifter camshafts, screw-in rocker studs are required. See stud specs or contact Crower.